ABSTRACT OF THE DISCLOSURE

A semiconductor laser device, module, and method for providing light suitable for providing an excitation light source for a Raman amplifier. The semiconductor laser device includes an active layer configured to radiate light, a spacer layer in contact with the active layer and a diffraction grating formed within the spacer layer, and configured to emit a light beam having a plurality of longitudinal modes within a predetermined spectral width of an oscillation wavelength spectrum of the semiconductor device. A plurality of longitudinal modes within a predetermined spectral width of an oscillation wavelength spectrum is provided by changing a wavelength interval between the longitudinal modes and/or widening the predetermined spectral width of the oscillation wavelength spectrum. The wavelength interval is set by the length of a resonator cavity within the semiconductor laser device, while the predetermined spectral width of the oscillation wavelength spectrum is set by either shortening the diffraction grating or varying a pitch of the grating elements within the diffraction grating.